

PATENT

Docket No. HM-647

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Confirmation No. : 3586

Applicant : Uwe PŁociennik, et al.

Serial No : 10/537,521

Filed : June 3, 2005

For : METHOD FOR PROCESS CONTROL OR PROCESS
REGULATION OF A UNIT FOR MOULDING, COOLING
AND/OR THERMAL TREATMENT OF METAL

Examiner : Sheela S. Rao

Art Unit : 2123

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

S I R:

The attention of the Examiner and of the Patent and Trademark Office is hereby directed to the references cited in parallel pending patent or patent application in Japan (Application no. 2004-556157). The references are listed on the attached form SB-08a. Copies of the foreign references are enclosed.

Japanese reference JP2001058202 relates to improving the operability of a Steckel rolling mill and the quality of products by providing a device to adjust the temperature of a rolled stock between a

furnace coiler provided on at least either of the inlet side and the outlet side of a rolling machine and the rolling mill.

Japanese reference JP61015916 relates to manufacturing efficiently a steel material of necessary quality in good yield by setting the hot-rolling conditions, cooling velocity, and the temp. to stop cooling satisfying the ferrite grain size estimating equations, and forming the desired quality.

Japanese reference JP4236724 relates to providing temp. controlling method in a heat treatment line for manufacturing a steel strip having the aimed deep drawability.

Japanese reference JP8075713 relates to measuring the crystal particle size and thickness of a specimen handily and in real time and to control thermal treatment of a steel plate and band steel by specifying the frequency range approximate in scattering attenuation value of ultrasonic wave using a scattering attenuation item alone in the obtaining crystal particle size of the specimen using the Rayleigh scattering formula.

Japanese reference JP60075525 relates to improving accuracy in the estimation of the quality of a steel material in hot rolling by setting an austenite grain size and cooling conditions which satisfy a prescribed equation for estimating a ferrite grain size and by regulating the quality of the steel material.

Japanese reference JP58084606 relates to predicting rolling load and to improve the efficiency of rolling work in the stage of rolling steel in a temp. region lower than the austenite-ferrite transformation temp. by expressing the decrease in the rolling load occurring in the restoration of strain accompanied with transformation and the difference in the deformation resistance of both phases with mathematical models.

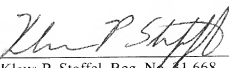
Japanese reference JP6307936 relates to allowing the temperature measurement of band steel indispensable to the realization of temporal control of steel plate temperature by employing a mechanism for directing or shifting a radiation thermometer to a measuring point, and a radiation

thermometer for measuring the temperature of the band steel at that point.

International reference WO9015885 relates to when steel material is cooled with a cooling belt, the temperature of the steel material is estimated based on the progress of transformation (variation of the transformation heat generation quantity relative with the variation with the lapse of time of the transformation rate) of the steel material, and the quantity of a cooling medium is determined on the basis of the estimated temperature of the steel material, the temperature of the steel material on a predetermined position on a production line or at a predetermined time thereon being controlled to a predetermined target level.

With the submission of this admitted prior art, applicant thus complies with the duty of disclosure as set forth at 37 CFR 1.56.

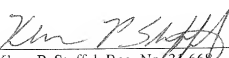
Respectfully submitted,
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Dated: June 3, 2011

CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this document is being electronically transmitted to the Commissioner for Patents via EFS-Web on June 3, 2011.

By: 
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Dated: June 3, 2011